



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2012-0880; Directorate Identifier 2012-CE-004-AD]

RIN 2120-AA64

Airworthiness Directives; Cessna Airplane Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain Cessna Airplane Company Model 525 airplanes equipped with certain part number (P/N) air conditioning (A/C) compressor motors. This proposed AD was prompted by reports of smoke and/or fire in the tailcone caused by brushes wearing beyond their limits on the A/C motor. This proposed AD would require inspection of the number of hours on the A/C compressor hour meter, inspection of the logbook, and replacement of the brushes on certain P/N A/C compressor motors or deactivation of the A/C system until replacement of the brushes. This proposed AD also requires reporting of aircraft information related to the replacement of the brushes. We are proposing this AD to correct the unsafe condition on these products.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Christine Abraham, Aerospace Engineer, Wichita Aircraft Certification Office, FAA, 1801 Airport Road, Room 100, Wichita, Kansas 67209; phone: (316) 946-4165; fax: (316) 946-4107; email: WICHITA-COS@FAA.GOV.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2012-0880; Directorate Identifier 2012-CE-004-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

We received more than 10 reports of smoke/fire (3 reports of fire) in the tailcone on Cessna Aircraft Company (Cessna) 525, 550, and 560 airplanes, where investigation revealed brushes had worn beyond their limits on the part number (P/N) 1134104-1 A/C compressor motors. When the brush wears down, the rivet in the brush contacts the commutator, causing sparks (potential ignition source) and excessive heat build-up within the motor assembly. The A/C motor is located in the tailcone where flammable fluids are present (fuel lines and some hydraulics) on the Cessna airplanes. There is no fire detection or fire extinguishing equipment in the tailcone.

This condition, if not corrected, could result in a fire in the tailcone with no means to detect or extinguish it.

FAA's Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would require repetitive inspection of the compressor hour meter on Cessna Model 525 airplanes that have P/N 1134104-1 or 1134104-5 A/C compressor motor installed; an aircraft logbook check for an entry for replacing the brushes, compressor motor, or compressor condenser module assembly (pallet); and replacement of the brushes on the A/C motor or deactivation of the A/C system with installation of a placard prohibiting use of the A/C system until replacement of the

brushes. This proposed AD would also require, when the brushes are replaced, reporting of aircraft information related to the replacement of the brushes. The FAA is analyzing this unsafe condition on airplanes certificated under 14 CFR part 25 and may take AD action on those airplanes.

The reporting data required by this proposed AD will enable us to obtain better insight into brush wear. The reporting data will also indicate if the replacement intervals we established are adequate. After we analyze the reporting data received, we may take future rulemaking action.

Costs of Compliance

We estimate that this proposed AD affects 408 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspect and replace brushes on the A/C motor	11 work-hours X \$85 per hour = \$935	\$252	\$1,187	\$484,296
Return shipment of brushes to the manufacturer	\$15 per return with two required returns	Not applicable	\$30	\$12,240

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress

charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

Cessna Aircraft Company: Docket No. FAA-2012-0880; Directorate Identifier 2012-CE-004-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Cessna Aircraft Company Model 525 airplanes, serial number (S/N) 525-0001 through 525-0558, and 525-0600 through 525-0701, that

(1) are equipped with part number (P/N) 1134104-1 or 1134104-5 air conditioning (A/C) compressor motor; and

(2) are certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 21, Air Conditioning.

(e) Unsafe Condition

This AD was prompted by reports of smoke and/or fire in the tailcone caused by brushes wearing beyond their limits on the A/C motor. We are issuing this AD to require replacement of the brushes on certain P/N A/C compressor motors or deactivation of the A/C system until replacement of the brushes. This AD also requires reporting of aircraft information related to the replacement of the brushes.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Inspections

Within the next 30 days after the effective date of this AD or within the next 10 hours time-in-service (TIS) after the effective date of this AD, whichever occurs first, do the following:

(1) Inspect the number of hours on the A/C compressor hour meter; and

(2) Check the aircraft logbook for any entry for replacing the A/C compressor motor brushes with new brushes or replacing the compressor motor or compressor condenser module assembly (pallet) with a motor or assembly that has new brushes.

(i) If the logbook contains an entry for replacement of parts as specified in the paragraph above, determine the number of hours on the A/C compressor motor brushes by comparing the number of hours on the compressor motor since replacement and use this number in paragraph (h) of this AD; or

(ii) If through the logbook check you cannot positively determine the number of hours on the A/C compressor motor brushes as specified in the paragraph above, you must use the number of hours on the A/C compressor hour meter to comply with the requirements of this AD or presume the brushes have over 500 hours TIS and use this number in paragraph (h) of this AD.

(h) Replacement

At the later of the times specified in paragraph (h)(1) and (h)(2) of this AD, using the hour reading on the A/C compressor hour meter determined in paragraph (g) of this AD, replace the A/C compressor motor brushes with new brushes. Thereafter, repeat the replacement of the A/C compressor motor brushes no later than every 500 hours TIS on the A/C compressor motor. Do the replacement following Cessna Aircraft Company Model 525 Maintenance Manual, Revision 23, dated July 1, 2012.

(1) Before or when the A/C compressor motor brushes reach a total of 500 hours TIS; or

(2) Before further flight after the inspection required in paragraph (g) of this AD.

(i) Deactivation

(1) In lieu of replacing the A/C compressor motor brushes, before or when the A/C compressor motor brushes reach a total of 500 hours TIS, you may deactivate the A/C. Pull the vapor cycle A/C circuit breaker, install a placard by the A/C selection switch prohibiting use of the vapor cycle air conditioner, and document deactivation of the system in the aircraft logbook referring to this AD as the reason for deactivation. While the system is deactivated, aircraft operators must remain aware of operating temperature limitations as detailed in the specific airplane flight manual.

(2) If you choose to deactivate the system and then later choose to return the A/C to service: Before returning the A/C system to service and removing the placard, you must apply the inspection and replacement requirements of the brushes as specified in paragraph (g) and (h) of this AD.

(j) Return of Replaced Parts and Reporting Requirement

For the first two A/C compressor motor brush replacement cycles on each aircraft, within 30 days after the replacement or within 30 days after the effective date of this AD, whichever occurs later, send the brushes that were removed to Cessna Aircraft Company, Cessna Service Parts and Programs, 7121 Southwest Boulevard, Wichita, KS 67215.

Provide the following information with the brushes:

(1) The Model and S/N of the airplane;

(2) P/N of Motor;

(3) P/N of the brushes, if known;

(4) The elapsed amount of motor hours since the last brush/motor replacement, if known;

(5) If motor hours are unknown, report the elapsed airplane flight hours since the last brush/motor replacement and indicate that motor hours are unknown; and

(6) Number of motor hours currently displayed on the pallet hour meter.

(k) Special Flight Permit

Special flight permits are permitted with the following limitation: Operation of the A/C system is prohibited.

(l) Paperwork Reduction Act Burden Statement

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 5 minutes per response, including the time for reviewing instructions, completing and reviewing the collection of information. All responses to this collection of information are mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at: 800 Independence Ave. SW, Washington, DC 20591, Attn: Information Collection Clearance Officer, AES-200.

(m) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Wichita Aircraft Certification Office, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in the Related Information section of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(n) Related Information

For more information about this AD, contact Christine Abraham, Aerospace Engineer, Wichita ACO, FAA, 1801 Airport Road, Room 100, Wichita, Kansas 67209; phone: (316) 946-4165; fax: (316) 946-4107; email: WICHITA-COS@FAA.GOV. Issued in Kansas City, Missouri, on August 16, 2012.

Earl Lawrence,
Manager, Small Airplane Directorate,
Aircraft Certification Service.

[FR Doc. 2012-20694 Filed 08/21/2012 at 8:45 am; Publication Date: 08/22/2012]